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REMARKS:

ATTACHED IS A REPLY BRIEF PURSUANT TO 37 CFR SECTION 41.41 FOR U.S. SERIAL NO. 09/591,584.

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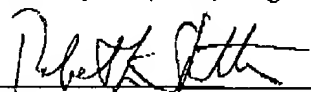
Applicant : Peter T. Dietz
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Sir:

REPLY BRIEF PURSUANT TO 37 CFR § 41.41

This Reply Brief is being filed within 2 months from the February 23, 2006 mailing date of the Supplemental Examiner's Answer. It is respectfully requested that the Board of Appeals give consideration to the comments set out below.

Rebuttal to New Assertions found in the "Grounds of Rejection"

Set out in the Examiner's Answer

I. With regard to the prior art rejections of independent claim 9 and its corresponding dependent claims and claims 41 and 42, which depend from independent claims 1 and 12, respectively, the Examiner's Answer states on pages 5 and 8 with regards to U.S. Patent No. 4,157,417 to Murphy:

Murphy fails to teach the window glass suitable for use in [a] vehicular or architectural glazing element. It is recognized that "suitable for use in [a] vehicular or architectural glazing element" is an intended use limitation. *** Mere recitation of "suitable for use in [a] vehicular or architectural glazing element" impacts no definite structure to the claimed window glass and is therefore found inadequate to convey structure in any patentable sense.

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Independent claim 9 recites:

A vehicular or architectural glazing element which has reduced spall and lacerative consequences on impact fracture, said glazing element comprising:

- (a) a laminate comprising a first lamina comprised of visible light transmissive flexible polymeric material having a first major surface and an opposite second major surface; a scratch-resistant layer over said first major surface; at least one additional lamina comprised of visible light transmissive flexible nonadhesive polymeric material; a sufficient number of layers of in situ visible light transmissive pressure sensitive adhesive layers to bond said laminae together with the scratch-resistant layer exposed; a layer of in situ visible light transmissive ambient temperature attachable pressure sensitive adhesive to bond said laminate to window glass; wherein the total thickness of the laminate exceeds about 5 mils and the laminate exhibits a light transmittance; and
- (b) window glass.

Claim 41 recites:

A vehicular or architectural glazing element comprising the laminate attached to window glass of claim 1.

Claim 42 recites:

A vehicular or architectural glazing element comprising the laminate attached to window glass of claim 12.

Independent claim 9 positively recites "A vehicular or architectural glazing element *** comprising: (a) a laminate *** and (b) window glass." Claim 41 positively recites a vehicular or architectural glazing element comprising the laminate attached to the window glass of claim 1. Claim 42 positively recites a vehicular or architectural glazing element comprising the laminate attached to the window glass of claim 12. These limitations are not intended use recitations. In

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view of the statements noted above from the rejections of claims 9, 41 and 42, it is submitted that the Examiner has ignored the limitations "A vehicular or architectural glazing element *** comprising: (a) a laminate *** and (b) window glass," found in claim 9, and the limitation "a vehicular or architectural glazing element comprising the laminate attached to window glass," found in each of claims 41 and 42. Ignoring these limitations is improper. None of U.S. Patent No. 5,118,540 to Hutchison; U.S. Patent No. 4,157,417 to Murphy; U.S. Patent No. 5,677,050 to Bilkadi et al.; U.S. Patent No. 6,033,785 to Tanaka et al.; and U.S. Patent No. 6,013,722 to Yang et al., whether taken singly or in combination, disclose, teach or suggest a vehicular or architectural glazing element comprising a laminate and window glass, as recited in claim 9, or a vehicular or architectural glazing element comprising a laminate attached to window glass, as recited in claims 41 and 42. Accordingly, it is submitted that independent claim 9 and its dependent claims 10, 11, 19-23, 33, 35, 37 and 39, and dependent claims 41 and 42 define patentable invention over the applied prior art.

Rebuttal to Comments Set Out in the "Response to Argument"

Section of the Examiner's Answer

I. The Examiner's Answer states on page 9:

The examiner respectfully wishes to point out that the difference between the present claims on first appeal *** is an additional intended use limitation "suitable for use in [a] vehicular or architectural glazing element." As such, the scope of the present invention is not distinguishable from the scope of the claims on the first appeal. Since the Board has affirmed rejections over Hutchison in view of Murphy, the examiner maintains that the rejections of the pending claims are sustained. Additionally, under the principles of *res judicata* and *collateral estoppel*, Appellant was not entitled to claims that were patentably indistinguishable from the claim lost in the first appeal.

It is improper for the Examiner to ignore in independent claims 1 and 12 the limitation "suitable for use in a vehicular or architectural glazing element." On page 5 of the January 28,

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2005 Decision on Appeal, the Board stated the "disclosure of 'support structure' may be considered as generic to window glass ***." Subsequent to the first Appeal, applicant has amended independent claims 1, 9 and 12 to recite that the window glass is suitable for use in or comprises part of a vehicular or architectural glazing element, please see the Amendment filed on May 23, 2005. Clearly, Hutchison does not disclose, teach or suggest to one skilled in the art that his support structure 212 comprises window glass capable of being used in or comprising part of a vehicular or architectural glazing element. Hutchison does teach providing a support structure 212 to which his reflective film 100 is secured so that solar radiation is reflected by the film 100 to "converge at the line of focus of *** [a] parabolic surface," see column 7, lines 20-27. Because the solar radiation is not intended to pass through the Hutchison support structure, there is no need for a window glass support structure suitable for use in or comprising part of a vehicular or architectural glazing element. Hence, it submitted that the scope of the claims in this second appeal are distinguishable from those in the first appeal.

The doctrines of *res judicata* and *collateral estoppel* are not applicable in this appeal. The CCPA stated in *In re Russell*, 169 USPQ 426 (CCPA 1971):

Here appellant has made a new record, presenting different questions of patentability even if the claims are viewed as identical to those in the prior case ***. [T]here is a public interest in granting valid patents which must be considered against the public interest upon which *res judicata* is based. For this reason, we reverse the board's decision on the *res judicata* rejection.

Here, applicant has presented modified claims and new arguments. Hence, the doctrines of *res judicata* and *collateral estoppel* do not apply.

II. The Examiner's Answer further states on pages 9 and 10:

Appellant argues that nowhere does Hutchison disclose or suggest using his film in combination with window glass for use in a vehicular or architectural glazing element. Appellant further argues

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that to use window glass to support the Hutchison film would be completely contrary to the scope of the Hutchison invention because the Hutchison film reflects "solar radiation impinging on any part of the surface of the flexible reflective film." The examiner disagrees. As confirmed by the Board, Hutchison does teach some uv light transmitted by the thin layer of silver (column 2, lines 14-20, see page 6 of the 01/28/2005 Decision on Appeal). Therefore, in view of the teachings of Murphy, one skilled in the art would have been motivated to use the reflective film of Hutchison in combination with a window glass suitable for use in a vehicular or architectural glazing element motivated by the desire to reduce the heat and glare of solar radiation.

It is acknowledged that Hutchison teaches some ultraviolet light passing through a thin layer of silver, see column 2, lines 15-21. However, this teaching does not suggest the combination of Hutchison and Murphy. Murphy discloses a film having "a marked reduction in transmission of ultraviolet rays, infrared light and reduction in glare while retaining good transparency to visible light," see column 5, lines 25-28. Hutchison further teaches a film construction that reflects all or almost all of the visible light spectrum. Hence, the teachings of Hutchison and Murphy are diametrically opposed such that one skilled in the art would not have been motivated or suggested to combine their teachings.

III. The Examiner's Answer further states on page 10:

Appellant argues that one skilled in the art would not have been motivated to use the reflective film of Hutchison on the window glass of Murphy because the Hutchison reflective film construction would not permit enough visible light through the window suitable for use in a vehicular or architectural application. Appellant states that any vehicle that had its windows covered with Hutchison reflective film construction would be a danger to the occupants because the driver's ability to see through the windows would be significantly impaired. The arguments are not found persuasive for patentability because they are not commensurate in scope with the claims. Nothing in the claims is specific about a window glass of the vehicles. The recitation "suitable for use in a vehicular or

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architectural glazing element” is an intended use limitation and does not necessarily require the vehicle window glass to be part of the claims.

It is improper for the Examiner to ignore the limitation “suitable for use in a vehicular or architectural glazing element,” as recited in independent claims 1 and 12. A similar “intended use” position was taken with regard to a § 103 rejection in *In re Mills*, 16 USPQ2d 1430 (Fed. Cir. 1990). There, the Federal Circuit said:

[The Board] *** asserts that the use of such a mechanism would have been obvious and that the differences between claim 6 and the Mathis machine lie solely in the functional language of the claim, the preamble merely stating an intended use for the machine. This language suggests a lack of novelty rejection under 35 U.S.C. § 102, rather than an obviousness rejection. However, no Section 102 rejection has been made or is before us.

While Mathis’ apparatus may be capable of being modified to run the way Mills’ apparatus is claimed, there must be suggestion or motivation in the reference to do so.

In the present appeal, no § 102 rejection has been made. Rather, all claims stand rejection under § 103(a). With regard to the § 103(a) rejection of independent claim 1 based upon U.S. Patent No. 5,118,540 to Hutchison in view of U.S. Patent No. 4,157,417 to Murphy and independent claim 12 based upon those same references in combination with U.S. Patent No. 5,677,050 to Bilkadi et al., the issue is NOT whether the references teach or suggest only some of the limitations recited in those claims while completely ignoring the limitation “suitable for use in a vehicular or architectural glazing element,” but, rather, whether one skilled in the art would have been motivated to use the Hutchison film in combination with the Murphy glass to make a laminate attached to window glass suitable for use in a vehicular or architectural glazing element.

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Murphy discloses and teaches window glass that includes a transparent solar control sheet material that reflects solar energy but is substantially transparent to visible light. For example, Murphy discloses a film having "a marked reduction in transmission of ultraviolet rays, infrared light and reduction in glare while retaining good transparency to visible light," see column 5, lines 25-28. Hutchison discloses and teaches a film construction that reflects all or almost all of the visible light spectrum as well as ultraviolet and infrared light but fails to disclose, teach or suggest using any kind of window structure, let alone window glass suitable for use in or comprising part of a vehicular or architectural glazing element.

In particular, Hutchison teaches providing a reflective film for use in a solar energy concentrator 200, see column 7, lines 9 and 10, and "other types of lighting reflectors ***, " see column 7, lines 41-45. Hutchison further teaches that "to be efficient[,] a reflective film must be highly specularly reflective to visible, ultraviolet, and/or near infra-red light between about 300-2,500 nanometers," see column 1, lines 19-22 of the Hutchison '540 patent. Hutchison also teaches in column 2, lines 15-18, "a thin layer of silver *** is characterized by the presence of a spectral 'window' through which ultraviolet light in the 300-400 nanometer region readily passes." There is no mention made in Hutchison that a thin layer of silver is characterized by the presence of a spectral window through which visible light passes.

Hence, the Hutchison film functions to reflect visible light in addition to ultraviolet and near infra-red light while the Murphy film functions to transmit visible light while reducing ultraviolet rays, infrared light and glare.

Faced with these teachings, one skilled in the art would not have been motivated to use the reflective film construction of Hutchison on the window glass of Murphy, to produce a vehicular or architectural glazing element, because the Hutchison reflective film construction would not permit enough, if any, visible light through the window for the window to be useful in a vehicular or architectural application.

As noted above, independent claim 9 positively recites "A vehicular or architectural glazing element *** comprising: (a) a laminate *** and (b) window glass." Claim 41 positively recites a vehicular or architectural glazing element comprising the laminate attached to the

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window glass of claim 1. Claim 42 positively recites a vehicular or architectural glazing element comprising the laminate attached to the window glass of claim 12. The limitations noted in these claims are not intended use recitations.

IV. The Examiner's Answer further states on page 10:

[I]t is recognized that there is nothing wrong with the use of the Hutchison reflective film construction on the windows in the passenger sides of the vehicles because it would of course not interfere with the driver's ability to see through the windows.

The Examiner provides no supporting reference or documentation for the above assertion. It is not contested that any occupant in a vehicle or building could not see through any window that included the Hutchison reflective film construction. If the passengers in a vehicle can't see through the passenger side windows neither can the driver. While there are a number of vehicles that include tinted windows that do not allow someone outside of the vehicle from seeing into the vehicle, such windows still allow the occupants inside of the vehicle to see outside of the vehicle. The Examiner provides no contrary references or evidence. In addition, there would be a number of practical problems associated with using Hutchison's opaque film including, for example, in the passenger side windows of a vehicle. Not being able to look out through all of the windows of the vehicle would reduce the driver's ability to navigate safely while operating the vehicle. It would also detract from the occupant's traveling pleasure, e.g., by not allowing the occupant to view the outside environment. Similarly, in architectural applications, not being able to see out of a window would significantly reduce the main reasons for having a window in a building, i.e., for allowing light in and allowing someone in the building to see the outside environment. The Examiner has failed to provide any motivation that would lead one of ordinary skill in the art to include the Hutchison film, or any other film that is opaque to visible light, in the window of a vehicle or a building. Without such motivation, the combination of Hutchison and Murphy is improper and the claims directed to vehicle and architectural applications should be allowed.

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V. The Examiner's Answer states on page 10:

Since the board has confirmed that the functions of these two films are very much alike (page 6 of the 1/28/2005 Decision on Appeal), it is submitted that the teachings of the two references are properly combined in the rejection of the pending claims.

The January 28, 2005 Decision on Appeal states on page 6:

[W]e determine that the functions of these similar solar control films are not "diametrically opposed" but are very much alike. Hutchison teaches that "[t]o be efficient a reflective film must be highly specularly reflective to visible, ultraviolet, and/or near infrared light between about 300-2,500 nanometers" (col. 1, ll. 19-22). Although Hutchison teaches that some uv light will be transmitted by the thin layer of silver (col. 2, ll. 14-20), this reference also teaches that "[s]ilver reflects visible light better than aluminum" (col. 1, ll. 52-53). Therefore the teaching in Murphy that visible light is somewhat transmitted by the aluminum layer (col. 5, ll. 25-27) is not a "diametrically opposed function" but would have been suggested to one of ordinary skill in this art by the teachings of Hutchison. We note that Murphy teaches that the transmission of visible light, even with a thin aluminum layer, may be reduced by up to 90% (col. 1, ll. 44-49; note that other metals such as silver are taught by Murphy at col. 1, ll. 49-54).

It is strongly submitted that Murphy does not merely teach that "visible light is somewhat transmitted by the" solar control film in column 5, lines 25-27, as concluded by the Board, but, rather, specifically states that the film retains "good transparency to visible light." This is in contrast to Hutchison's teaching that "to be efficient[,] a reflective film must be highly specularly reflective to visible, ultraviolet, and/or near infra-red light between about 300-2,500 nanometers," see column 1, lines 19-22 of the '540 patent.

It is noted that Hutchison teaches "[s]ilver reflects visible light better than aluminum. The pure metals [of silver and aluminum] respectively reflect approximately 98% and 91% of the light striking their surfaces," see column 1, lines 52-55. However, nowhere does Hutchison

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disclose, teach or suggest that the remaining amount of radiation, i.e., radiation not reflected, passes completely through the layer. Hence, applicant strongly disagrees with the Board's conclusion found on page 6 of the January 28, 2005 Decision on Appeal that "the teaching in Murphy that visible light is somewhat transmitted by the aluminum layer (col. 5, ll. 25-27) is not a 'diametrically opposed function' but would have been suggested to one of ordinary skill in this art by the teachings of Hutchison" found in col. 1, ll. 52-53. This conclusion presumes that radiation passes completely through the metal layer in Hutchison. Again, there is no teaching in Hutchison to support this finding.

VI. The Examiner's Answer states on page 12 and 13:

Appellant argues that there is no suggestion or motivation in either cited reference to replace a temporary polypropylene premask film as disclosed by Hutchison with a permanent cured ceramer [sic] layer as described by Bilkadi. The arguments are not found persuasive for patentability because the basis of obviousness from which the rejections [sic] was formulated has nothing related to the replacement of a temporary polypropylene premask film of Hutchison with a permanent cured ceramer [sic] layer of Bilkadi as asserted by Appellant.

Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to use the ceramer coating as taught in Bilkadi on the outer surface of the laminate motivated by the desire to provide the laminate with excellent abrasion resistance and outdoor durability.

It appears that the Examiner is now taking the position that the rejection of claim 12 under 35 U.S.C. § 103(a) based on the '540 patent and the '417 patent in view of U.S. Patent No. 5,677,050 to Bilkadi et al. does not involve replacing the temporary polypropylene premask film, as disclosed by Hutchison, with a permanent, cured ceramer layer, as disclosed by Bilkadi et al. In any event, the rejection of claim 12 is still improper. There is no suggestion or motivation

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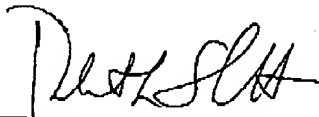
provided by Hutchison, Murphy or Bilkadi et al. for applying the ceramer layer of Bilkadi et al.
to the film disclosed by Hutchison.

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CONCLUSION

It is submitted that claims 1-15, 17-22, 31-33, 35, 38, 39, 41 and 42 define patentably over the applied prior art. Accordingly, it is respectfully requested that the Board reverse the Examiner's final rejection of claims 1-15, 17-22, 31-33, 35, 38, 39, 41 and 42.

Respectfully submitted,
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